

1 Figure 11 illustrates the spectra obtained for a complete assay cycle, showing the
2 effects of TFP on recovery of spectral properties of entrapped BCaM-Melittin complex
3 when recovered from GdHCl denaturation in the absence of TFP and presence of TFP.

4 Figure 12 is a table illustrating anisotropy and wavelength values obtained with
5 an assay according to the present invention with BCaM:Melittin complex

6 Figure 13 illustrates the principles of FRET as applied to the present invention.

7 Figure 14 illustrates the application of FRET to an assay according to the present
8 invention.

9 Figure 15 illustrates a possible FRET system for BCaM-Melittin

10 Figure 16 is a graph illustrating the fluorescence signal from BCaM/Dansyl-
11 Melittin system when excited at 295 nm.

12 Figure 17 is a graph illustrating the fluorescence intensity changes with
13 increasing concentrations of guanidine hydrochloride on a BCaM/Dansyl-melittin
14 complex in solution.

15 Figure 18 is a graph illustrating the fluorescence signal of free and complexed
16 dansyl-melittin excited at 350 nm.

17 Figure 19 is a graph illustrating the fluorescence spectra of SAP and
18 phosphorylated SLAM peptide.

19 Figure 20 is a graph illustrating the effects of titration of SAP with n-pY-c on
20 fluorescence intensity of SAP.

21 Figure 21 is a He-Cd laser based fiber optic fluorimeter for reading of sol-gel
22 derived arrays.

23 Figure 22 is an array of sol-gel derived silica spots containing an entrapped
24 protein (fluorescein labelled human serum albumin) on a glass slide and spectra obtained
25 from the fiber optic fluorimeter shown in Figure 21.

26 27 **DETAILED DESCRIPTION OF THE INVENTION**

28 **Types of Biomolecular Interactions**

29 As mentioned above, the present invention contemplates a biomolecular
30 interaction physically entrapped or covalently attached within a carrier, preferably a solid
31 carrier.